

**I Addendum III
Connecticut Wetland Delineation Report**

**Islander East Pipeline Project
New Haven County, Connecticut**

Prepared for:

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1.0 INTRODUCTION

The Islander East Pipeline Project involves actions by two separate pipeline companies: Algonquin Gas Transmission Company ("Algonquin") and Islander East Pipeline Company, L.L.C. ("Islander East"). Algonquin proposes to construct a new compressor station and upgrade existing interstate natural gas pipeline facilities located in New Haven County, Connecticut, while Islander East proposes to lease pipeline capacity on facilities owned by Algonquin and construct new interstate natural gas pipeline facilities in Connecticut and New York. The proposed Islander East 24-inch diameter pipeline will extend through the towns of North Haven, East Haven, North Branford, and Branford, Connecticut, continuing south into Long Island Sound, and eventually terminating at delivery points in Brookhaven, New York and Calverton, New York.

As part of the initial environmental assessment process, wetlands located within the Islander East Project and Algonquin construction limits were identified and delineated in May and July of 2001 by Islander East. Wetlands were delineated according to criteria and definitions outlined in the U.S. Army Corps of Engineers (ACOE) Wetlands Delineation Manual (ACOE 1987) and the State of Connecticut Inland Wetlands and Watercourses Regulations. A field report summarizing the identified wetlands along the proposed route was finalized in August 2001. Since then, supplemental wetland delineations have been conducted in areas where access had been previously restricted. Addenda I and II to the Connecticut Wetland Delineation Report (October 2001 and December 2001, respectively) summarize additional wetlands where access had become available or where one area was assessed for a potential route variation. This third addendum to the Connecticut Wetland Delineation Report summarizes the results of additional field work conducted on September 9, October 15 and 29, and November 18, 2002.

2.0 WETLAND DELINEATION METHODS

Parcels investigated for this Addendum report where access was previously restricted include, within the Town of North Haven: NHV-023, NHV-035, NHV-036, and NHV-039; and, within the Town of North Branford: NHV-068, NHV-090, NHV-098.1, NHV-099, NHV-97, NHV-100.1, NHV-124, and NHV-128. Previously delineated Parcel NHV-084 was also reviewed because of a proposed shift of the work space to the opposite side of the ROW. Access roads ML-TAR-5.54 and 5.55 were also investigated for the presence of wetlands.

In addition, several segments within the Algonquin Pipelines Retest Section were investigated for the presence of wetlands. These parcels include RT-009H (Algonquin MP 0.68), RT-010 and RT-011 (Algonquin MP 0.55 and 0.66), RT-083, RT-088 and RT-089 (Algonquin MP 3.74 and 3.79), RT-091 (Algonquin MP 3.85), RT-149 (Algonquin MP 7.5), RT-173 (Algonquin MP 8.02) and C-3-4 (Algonquin MP 10.6).

See Table 2-1 for a list of the remaining parcels requiring field surveys as of November 2002.

Table 2-1: Summary of Remaining Parcels Requiring Wetland Survey
as of November 2002

Approximate Begin Milepost	Crossing Length (feet)	Tract ID
0.6	20	NHV-021
1.1	50	NHV-033.1
1.1	280	NHV-034
6.0	1,650	NHV-137
Total	2,000	

Delineation of wetland boundaries encountered along the alignment was conducted using both the Federal Routine Determination Method presented in the ACOE Wetlands Delineation Manual (ACOE 1987) including clarifications and interpretations provided in the March 6, 1992 guidance memorandum (Williams 1992), as well as the Connecticut State delineation criteria. In accordance with state delineation criteria, field identification of Connecticut wetland soil was used for determining wetland boundaries in the State of Connecticut. Criteria for wetland soil in Connecticut include all alluvial, poorly drained, and very poorly drained soils. Historically, there have been regional variations in the application of soil drainage classes in the New England area. Upon the recommendation of the Connecticut Natural Resources Conservation Service (NRCS), a publication entitled *Notes on Criteria Used For Identifying Wet Soils In Connecticut and Rhode Island* (Kolesinskas and Sautter 1990) was used to identify soil drainage classes in Connecticut for this project. This publication describes soil drainage classes and identifies soil morphological features commonly used in the field by Connecticut NRCS staff.

The 1987 ACOE manual and guidance memorandums emphasize a three-parameter approach to wetland boundary determination. This approach involves the identification of: (i) evidence of wetland hydrology; (ii) presence of hydric soils; and (iii) predominance of hydrophytic vegetation as defined by the National Plant List Panel (Reed 1988). Positive indicators of all three parameters are normally present in wetlands and will serve to distinguish between both upland and transitional plant communities. Identified wetlands were classified according to Cowardin et al. (1979).

After a wetland was identified, transects were established perpendicular to the wetland/upland boundary in order to document conditions within each community and firmly establish the wetland boundary. The wetland boundary was then marked with sequentially numbered pink surveyors' flags. These flags were marked with the state abbreviation in which the wetland is located (CT), the wetland crew designation (A), the wetland number (1, 2, 3, etc.), and the state (S), federal (F), or state/federal (X) common boundary. For parcels NHV-035 and NHV-036, flags were marked with the town abbreviation in which the wetland is located (NH for North Haven), the wetland number (1, 2, 3, etc.), and the sequential flag number. Once wetland flags were placed, the location of each flag was pinpointed with the use of a Global Positioning System (GPS) unit or conventional survey methods. These data were stored in the GPS for

subsequent downloading into a Geographic Information System (GIS) and plotting onto project alignment sheets. The vegetation, hydrology, and soils portions of the ACOE Routine Wetland Determination data forms were completed during the property inspection at each data point along each transect. These data forms along with field sketches of each wetland are provided in Attachment A. Photographs of the wetlands and USGS topographic maps can be found in Attachments B and C, respectively. The results of the delineations are summarized in Section 3.0.

3.0 WETLAND DELINEATION RESULTS

3.1 Overview

No wetlands were observed within parcels RT-009H, NHV-023, NHV-068, and NHV-090 or along the associated access roads. No wetlands were identified within the proposed work areas at parcels RT-010, RT-011, RT-149, and RT-173.

Wetland CT-A57 was identified along the existing Algonquin pipeline between approximate Algonquin MP 3.80 and 3.96 in the Town of Cheshire. This area consists of a forested and shrub wetland.

Wetland CT-A56 was identified along the access road to the Defco meter station C31, located on Parcel C-3-4 at approximate MP 10.6 on the Algonquin pipeline, adjacent to Route 15 in the Town of North Haven. This area includes a large forested and emergent floodplain wetland associated with the Quinnipiac River that extends from the upper access road to the Valve site.

Wetland NH1 was identified within the adjoined parcels NHV-035 and NHV-036 in the Town of North Haven. This wetland resource is classified as forested wetland, with a permanently maintained emergent wetland (wet meadow) along the existing Algonquin pipeline ROW (ROW). The wetland was observed to continue on either side of these parcels, to both the north and south, within a single parcel, NHV-034, which flanks the NHV-035 and 036 parcels. Parcel NHV-034, however, was restricted from access at the time of the September 9, 2002 site visit.

Wetlands CT-A6 and CT-A12 in the Town of North Haven were identified previously in the field on parcels NHV-038 and NHV-040, respectively. These wetlands were extended onto parcel NHV-039, a previously restricted access parcel. These wetland resources are classified as forested wetland, with a permanently maintained emergent wetland (wet meadow) along the existing Algonquin pipeline right-of-way.

Wetlands CT-A58 and CT-A59 were identified along the existing Algonquin pipeline ROW between approximate proposed MP 4.4 and 4.7 in the Town of North Branford. These wetland resources are classified as forested wetland, with a permanently maintained emergent wetland (wet meadow) along the existing Algonquin pipeline right-of-way.

Wetland CT-A55 was identified within parcel NHV-124 and NHV-128 in the Town of North Branford along the proposed Islander East pipeline right-of-way. This resource area is classified

as forested wetland, and borders a stream emanating from the northwest. This stream and associated wetlands border the proposed ROW adjacent to parcel NHV-124, and was identified previously in the field as Wetland CT-A15 on parcels NHV-122, NHV-123 and NHV-125.

Wetlands within parcel NHV-084 at approximate milepost 3.95 in North Branford, previously delineated as Wetland CT-A9 for the initial Connecticut Wetlands Report, was re-inspected due to the proposed shift of the work space to the opposite side of the ROW. The area inspected for the new work space consists of a mowed field. No hydrophytic vegetation, wetland hydrology or hydric soils were identified.

Table 3-1 summarizes the extended and newly identified wetlands. Brief descriptions of the wetlands can be found in Section 3.2.

Table 3-1: Wetland Summary						
Approx. Begin Milepost	Wetland ID No.	Cowardin Classification	ACOE Jurisdiction	CT Jurisdiction/DC ¹	Associated Stream/ Watercourse	PHOTO(S)
Algonquin 3.80	CT-A57	PFO/SS	Yes	Yes/PD	None	1, 2
Algonquin 10.6	CT-A56	PFO/PEM	Yes	Yes/PD	Quinnipiac River	3, 4
1.09	CT-NH1	PFO/PEM	Yes	Yes/PD ²	None	none
1.3	CT-A6 Extension	PFO/PEM	Yes	Yes/PD	None	5
1.5	CT-A12 Extension	PFO/PEM	Yes	Yes/PD	None	6
4.4	CT-A58	PFO/PEM	Yes	Yes/PD	None	7
4.5	CT-A59	PFO/PEM	Yes	Yes/PD	Unnamed stream	8
5.50	CT-A55 (A15 Extension)	PFO	Yes	Yes/PD	Unnamed stream	9,10,11,12

DC = Drainage Class according to Kolesinskas and Sautter, 1990.
(SPD = somewhat poorly drained; PD = poorly drained; VPD = very poorly drained; WD = well drained)
² Disturbed soils; may not necessarily fall within any listed criteria.
DC generally assigned, reflective of indicators of seasonal high water.

3.2 Wetland Descriptions

Information on wetland vegetation, soils and hydrology are presented below for each of the identified wetland areas.

3.2.1 Town of Cheshire

3.2.1.1 Wetland CT-A57

This wetland is located along the existing Algonquin pipeline ROW at Algonquin MP 3.8. It is immediately southwest of previously delineated Wetland CT-A42. Within the pipeline ROW, the wetland is a shrub swamp, and the surrounding area is forested. The wetland contains woodland sapling, shrub and herbaceous species including American elm (*Ulmus americana*), pin oak (*Quercus palustris*), red maple (*Acer rubrum*), black oak (*Quercus velutina*), tuliptree (*Liriodendron tulipifera*), winterberry (*Ilex verticillata*), willow (*Salix* sp.), blackberry (*Rubus* sp.), multiflora rose (*Rosa multiflora*), joe-pye-weed (*Eupatorium purpureum*), wood fern (*Dryopteris* sp.), goldenrods (*Solidago* spp.), and others. While soils within the wetland are disturbed as a result of previous pipeline construction, the general profile was observed as 7.5YR3/2 fine sandy loam, overlying 7.5YR3/3 fine sandy loam subsoil with significant redoximorphic features (concentrations and depletions). Based on the presence of these significant redox features within the red matrix, in addition to the wetland hydrologic indicators such as drainage patterns, these soils are considered to be hydric. Wetland CT-A57 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

3.2.2 Town of North Haven

3.2.2.1 Wetland CT-A6 Extension

Located approximately 800 feet south of Route 17 along the existing Algonquin ROW is Wetland A6. According to NWI mapping and confirmed by subsequent field investigations, this wetland is classified as a PFO1E with an associated PEM along the existing ROW. For the extension of CT-A6 on Parcel NHV-038, flags labeled CT-A6-101 to 110 were hung in the field. Red maple, green ash (*Fraxinus pennsylvanica*), spicebush, jewelweed, tussock sedge (*Carex stricta*), and red top grass (*Agrostis alba*) are the predominant plant species throughout the wetland. Soils were investigated to a depth of 21 inches revealing a histic epipedon directly above by a depleted matrix. The hydrology of the wetland appears to be driven primarily by groundwater discharge; however, inputs from surface water from the adjacent hillslope may also contribute. Observed hydrologic indicators included inundation, saturation, watermarks, and drainage patterns. Wetland CT-A6 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

3.2.2.2 Wetland CT-A12 Extension

Wetland CT-A12, which is located between Route 17 and Half Mile Road along the existing ROW, is classified as a palustrine, permanently flooded wetland with an unconsolidated bottom. Field investigations also revealed an associated PEM/PFO1 surrounding the ponded area. For the extension of CT-A12 on Parcel NHV-040, flags labeled CT-A12-101 to 111 were hung in the field. Jewelweed and rough-leaf golden-rod (*Solidago patula*) dominate the herbaceous layer with silky dogwood, spicebush, red maple, and green ash in the shrub and tree layer. Soils were

investigated adjacent to the pond to a depth of 15 inches revealing a silty loam with a matrix color of 5YR3/3 and 15 percent to 25 percent high and low chroma mottles in the B horizon. Like some of the above wetlands, Wetland A12 has been altered by fill material from the existing pipeline and the adjacent agricultural field therefore obscuring the field indicators for hydric soils. Furthermore, this soil may have formed in parent materials derived from red Triassic sandstones therefore masking the soil morphologies. Based on field observations, including the existence of a permanently ponded area, this soil is likely flooded for a long duration during the growing season. The hydrology of the wetland appears to be driven primarily by a combination of groundwater discharge and overland surface flows from the adjacent agricultural field. Wetland CT-A12 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

3.2.2.3 Wetland CT-A56

This wetland consists of the Quinnipiac River forested and emergent (wet meadow and shallow marsh) floodplain in the vicinity of the C31 Valve site (Parcel C-3-4) and the Defco meter station, at approximate MP 10.6 on the existing Algonquin pipeline. Wetland flags A56-1 through A56-6 mark the wetland boundary across the access road to the valve site from Highway 15 (Merritt Parkway). The area from this access road to the valve site itself is entirely within wetlands. Since the access road and the area around the valve site is within the existing pipeline ROW, it consists of emergent wetlands containing purple loosestrife (*Lythrum salicaria*), reed canary-grass (*Phalaris arundinacea*), smartweed (*Polygonum* sp.), cattail (*Typha latifolia*), common reed (*Phragmites australis*), asters (*Aster* spp.), goldenrods, willow-herb (*Epilobium* sp.), and other species. Forested wetlands surrounding the pipeline ROW contain red maple, American elm, red ash (*Fraxinus pennsylvanica*), spicebush (*Lindera benzoin*), gray dogwood (*Cornus racemosa*), jewelweed (*Impatiens capensis*), and other species in the understory. Soils within the wetlands are deep, silt loam and fine sandy loam with a matrix color of 5YR 4/3 in the upper six inches, followed by 5YR4/2 matrix color with 5YR3/4 redoximorphic features. These soils meet the criteria for poorly drained floodplain soil typical of the Quinnipiac River Valley. The entire floodplain shows obvious wetland hydrologic indicators. Wetland CT-A56 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

3.2.2.4 Wetland CT-NH1

Wetland CT-NH1, within parcels NHV-035 and NHV-036, is located approximately 100 feet south of Highway 17 in North Haven along the existing Algonquin ROW. Based on field observations, this wetland is classified as a PFO wetland on both sides of the Algonquin ROW (including the adjacent, proposed Islander East pipeline right-of-way), and PEM within the existing Algonquin right-of-way. Predominant wetland vegetation includes red maple, American elm, sweet pepperbush (*Clethra alnifolia*), spicebush, cinnamon fern (*Osmunda cinnamomea*), and greenbriar (*Smilax* sp.). Soils were investigated to a depth of 20 inches revealing a fine sandy loam with a matrix color of 7.5YR3/2 (O/A horizons) and 7.5YR4/2 (subsoil) and <5 percent redoximorphic features in the B horizon. Observed hydrologic indicators included drainage patterns. Wetland CT-NH1 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

3.2.3 Town of North Branford

3.2.3.1 CT-A55

Wetland CT-A55 is an extension of previously delineated CT-A15 (described in the Connecticut Wetland Delineation Report, August 2001), located along an unnamed stream along the southwest edge of parcel NHV-124. It consists of a disturbed, narrow, forested area with an abrupt slope along the existing Algonquin 8-inch C-5 pipeline. The stream flows from the northwest within parcel NHV-122 (and other parcels upgradient), crosses the Algonquin pipeline as it enters parcel NHV-124, and continues parallel to the Algonquin pipeline on its southern side. Adjacent to the parcel, the stream appears to have been dug out and formed into a small basin. Further south and east, the stream narrows and continues in a normal channel. The wetland itself is a narrow, forested area along the disturbed/fill bank of the stream containing primarily red maple, Norway maple (*Acer platanoides*), Speckled alder (*Alnus rugosa*), multiflora rose (*Rosa multiflora*), spicebush, silky dogwood (*Cornus amomum*), and sedges (*Carex* spp.) in the understory. Soils in the wetland consists of disturbed/filled, gravelly fine sandy loam materials with a matrix color of 7.5YR3/3 (A horizons) overlying a 7.5YR3/2 fine sandy loam subsoil (B horizon) with <5 percent redoximorphic features. Observed hydrologic indicators included drainage patterns indicative of wetlands. Wetland CT-A55 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

3.2.3.2 CT-A58

Wetland CT-A58 is located approximately 250 feet east of Doral Farms Road along the existing Algonquin ROW. Based on field observations, this wetland is classified as a PFO wetland on both sides of the Algonquin ROW (including the adjacent, proposed Islander East pipeline right-of-way), and PEM within the existing Algonquin right-of-way. Predominant wetland vegetation includes common reed and goldenrods within the maintained ROW while ironwood (*Carpinus caroliniana*), swamp white oak (*Quercus bicolor*), spicebush, and red maple dominated the forested portions. Soils were investigated to a depth of 20 inches revealing a fine sandy loam with a matrix color of 5YR4/4 within the first 10 inches and 5YR4/2 in the subsoil. Approximately 5 percent redoximorphic features were scattered throughout. The soils were investigated in a portion of wetland A58 that has been altered by past disturbance associated with construction of the existing pipeline, therefore obscuring the field indicators for hydric soils. Observed hydrologic indicators included saturation in the upper twelve inches and drainage patterns. Wetland CT-A58 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

3.2.3.3 CT-A59

Based on field observations, wetland CT-A59 is classified as a PFO wetland on both sides of the Algonquin right-of-way, and PEM within the existing Algonquin right-of-way. Soft rush (*Juncus effusus*), lurid sedge (*Carex lurida*), cattail, bugleweed (*Lycopus virginicus*), and silky dogwood (*Cornus amomum*) are the predominant plant species on the existing ROW while

ironwood, swamp white oak, spicebush, and red maple dominated the forested portions. Soils were investigated to a depth of 16 inches (auger refusal due to rocks) revealing a fine sandy loam with a matrix color of 5YR4/3 and 5YR4/4 and approximately 5 percent redoximorphic features throughout. Like many of the wetlands identified along the existing ROW, soils within Wetland A59 have been altered by past disturbance associated with construction of the existing pipeline, therefore obscuring the field indicators for hydric soils. Observed hydrologic indicators included surface saturation and drainage patterns. Wetland CT-A59 qualifies as both an ACOE and Connecticut State jurisdictional wetland.

4.0 CONCLUSIONS

Five wetlands were identified within the Islander East Pipeline Project limits and Algonquin Pipeline Retest Section during the Fall 2002 follow up surveys. These wetlands are in addition to the 54 wetlands previously identified as occurring within or adjacent to the proposed Islander East pipeline ROW and existing Algonquin pipeline right-of-way. In most cases, these wetlands exhibit wetland hydrology, hydric soils, and hydrophytic vegetation as defined in the ACOE Wetlands Delineation Manual, as well as the field soil morphological characteristics for alluvial, poorly, or very poorly drained soils as required under Connecticut State Regulations. Since many of the wetlands occur along the previously disturbed areas, the positive indicators of hydric/wetland soils were sometimes obscured or absent. In these cases, best professional judgment, hydrology, and position on the landscape were considered in the final determination. In all cases the state boundary coincided with the same boundary as the Federal delineation.

The remaining 2,000 feet of the Islander East pipeline route requiring wetland field surveys is shown on the USGS topographic maps included as Attachment C. As access to these restricted areas is gained, additional addendum reports will be released summarizing any newly identified wetland resources.

5.0 REFERENCES

- ACOE. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report U-87-1. Waterways Experiment Station, Vicksburg, MS.
- Cowardin, L.M., V. Carter, F.C. Golet and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish & Wildlife Service, Office of Biological Services. FWS/OBS-79/31. December.
- Kolesinskas, K.J. and Sautter, E.H. 1990. Notes on Criteria Used for Identifying Wet Soils in Connecticut and Rhode Island. USDA Soil Conservation Service, Storrs, Connecticut.
- Reed, P. 1988. National List of Plant Species that Occur in Wetlands. U.S. Fish & Wildlife Service, St. Petersburg, FL.
- Williams, A.E. 1992. Memorandum Subject: Clarification and Interpretation of the 1987 Manual. U.S. Army Corps of Engineers. March 6, 1992

ATTACHMENT A

ACOE DATA FORMS AND FIELD SKETCHES

Islander East NHV-124 A55-1 to 10

PROJECT TITLE:		TRANSECT: 1	PLOT: WET
DELINEATOR(S): CD, DR		DATE: 10/15/02	
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance
Herb	Aster divaricatus	10/40	25
	Carex sp.	10/40	25
	Cornus amomum	10/40	25
	Carya ovata	10/40	25
Shrub	Lindera benzoin	40/120	33
	Rosa multiflora	20/120	16
	Alnus rugosa	60/120	50
Tree	Acer platanoides	6	50
	Acer rubrum	1	50
NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.			
NOTE 2: Species with NA or N/A status are reported, but are not tallied in the tally below.			
1	2	1	2
OBL	FACW	FAC	OTHER HYDROPHYTES
Hydrophytes SUBTOTAL: 3		NON-hydrophytes SUBTOTAL: 4	
100 x Subtotal Hydrophytes		PERCENT HYDROPHYTES	
Subtotal Hydrophytes + Subtotal Non-hydrophytes		50%	
HYDROLOGY			
<input type="checkbox"/> RECORDED DATA Stream, lake or tidal gage Identification: _____ Aerial Photograph Identification: _____ Other Identification: _____ <input type="checkbox"/> NO RECORDED DATA <input type="checkbox"/> OBSERVATIONS: Depth to Free Water: _____ Depth to Saturation (including capillary fringe): 0 Describe Altered Hydrology: _____ <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns within Wetland <input type="checkbox"/> OTHER (explain): _____			

Highly disturbed fill slope -
Plot included upl. side partially

SOIL	Sketch Landscape Position			
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES	USDA Texture, and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-10	A	7.5YR 3/3	—	FSL, gravelly fill
10-16+	B	7.5YR 3/2	7.5YR 5/6 c,d Redox Depl's	FSL, gravelly
HYDRIC SOIL INDICATOR(S) REFERENCE:				
Low chroma, Redox				
OPTIONAL SOIL DATA REFERENCES:				
TAXONOMIC SUBGROUP:				
SOIL DRAINAGE CLASS: PD				
DEPTH TO ACTIVE WATER TABLE: ~12				
NTCHS HYDRIC SOIL CRITERION:				
CONCLUSIONS				
Greater than 80% Hydrophytes? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No * Hydric Soils Criterion Met? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Met? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No IS THIS DATAPOINT WITHIN A WETLAND? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No REMARKS:				
PROJECT TITLE: TRANSECT: PLOT:				

NHV-124
Islander East CT-A55

PROJECT TITLE:		TRANSECT:	PLOT: UP	
DELINEATOR(S): CD, DR		DATE:		
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
<u>Herb</u>	<i>Aster divaricatus</i>	5/15	33	UPL
	<i>Fraxinus americana</i>	10/15	67	FAC4
<u>Shrub</u>	<i>Elaeagnus umbellata</i>	10/15	67	UPL
	<i>Quercus velutina</i>	5/15	33	
<u>tree</u>	<i>Ostrya virginiana</i>	10/60	17	
	<i>Acer platanoides</i>	50/60	83	UPL
<small>NOTE 1: Use asterisk * to indicate plants with reported adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the table below.</small> <small>NOTE 2: Species with FAC or H status are reported, but are not restricted to the table below.</small>				
OBL FACW FAC OTHER HYDROPHYTES FAC FACU UPL		1 3		
Hydrophytes SUBTOTAL:		4		
100 x Subtotal Hydrophytes Subtotal Hydrophytes + Subtotal Non-hydrophytes		PERCENT HYDROPHYTES 0%		
HYDROLOGY: <small>Hydrology is often the most difficult feature to observe. Interpretation must consider the variety of site characteristics in light of the season, recent weather conditions, seasonal abundance, etc. Interpretation of hydrology may require repeated observations over more than one season.</small>				
<input type="checkbox"/> RECORDED DATA Screen, soil or soil pipe Identification: _____ Aerial Photograph Identification: _____ Other Identification: _____				
<input type="checkbox"/> NO RECORDED DATA				
<input type="checkbox"/> OBSERVATIONS: Depth to Free Water: _____ Depth to Saturation (including capillary fringe): _____ Describe Adverse Hydrology: _____				
<input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns within Wetland				
<input type="checkbox"/> OTHER (explain): _____				

UP

SOIL	Sketch Landscape Position			
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture, and nodules, concretions, masses, pore fringe, restrictive layers, root distribution, soil water, etc.
0-12	—	7.5YR 3/3	—	Dry Loamy Fill
HYDRIC SOIL INDICATOR(S)			REFERENCE:	
None				
OPTIONAL SOIL DATA:			REFERENCES:	
TAXONOMIC SUBGROUP:				
SOIL DRAINAGE CLASS:				
DEPTH TO ACTIVE WATER TABLE:				
NTCHS HYDRIC SOIL CRITERION:				
CONCLUSIONS				
Greater than 50% Hydrophytes? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No IS THIS DATAPPOINT WITHIN A WETLAND? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Hydric Soils Criterion Met? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No REMARKS:				
Wetland Hydrology Met? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
<small>Soil & Groundwater Report (USDA Form 1)</small>				
PROJECT TITLE:		TRANSECT:	PLOT:	

Wetland NH1

Islander East NHV-035,036

PROJECT TITLE:		TRANSECT:	PLOT:	
DELINEATOR(S):		DATE:		
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
Herb				
	cinn fern	1	100	✓
shrub				
	Spicebush	50/90	56	FACW ✓
	Sweet Pepperbush	40/90	44	FACT ✓
Tree				
	Red Maple	80/80	100	FIL ✓

NOTE 1: Use subscripts to indicate plants with observed adaptations to wetland hydrology. Plants recorded with subscripts should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	OTHER HYDROPHYTES	FAC	FACU	UPL
	2	1	3			

Hydrophytes SUBTOTAL: 3

NON-hydrophytes SUBTOTAL: 0

100 x Subtotal Hydrophytes / Subtotal Hydrophytes + Subtotal Non-hydrophytes = PERCENT HYDROPHYTES = 100 %

HYDROLOGY

☐ RECORDED DATA
Stream, lake or tidal gage Identification: _____
Aerial Photograph Identification: _____
Other Identification: _____

☐ NO RECORDED DATA

☐ OBSERVATIONS:

Depth to Free Water: _____
Depth to Saturation (including capillary fringe): 12
Describe Altered Hydrology: _____

☐ Inundated ☒ Saturated in upper 12 inches ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns within Wetland

☐ OTHER (explain): _____

SOIL		Sketch Landscape Position		
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-6	O/A	7.5YR 3/2	RC'S, C, F, F	FSL, mucky
6-18	B	7.5YR 4/2	RC'S C, F, F RD'S F, F, F	FSL

HYDRIC SOIL INDICATOR(S):

REFERENCE: Dark Colors, Depleted Matrix

OPTIONAL SOIL DATA:

TAXONOMIC SUBGROUP:

SOIL DRAINAGE CLASS: PD

DEPTH TO ACTIVE WATER TABLE:

ATCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No
Greater than 60% Hydrophytes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hydric Soils Criterion Met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland Hydrology Met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IS THIS DATAPPOINT WITHIN A WETLAND? ☒ Yes ☐ No

REMARKS:

PROJECT TITLE: TRANSECT: PLOT:

Wetland NHI

Islander East NHV-035, 036

PROJECT TITLE:	TRANSECT: 1	PLOT: UP
DELINEATOR(S): CD	DATE: 9/9/02	NHI-7

VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NHI STATUS
Herb.				
	Vinca	75/105	71	UPL
	Sweet pepper bush	10/105	10	FAC
	Cinn fern	20/105	19	FACW
Shrub				
	Sweet pepper bush	30/65	46	FAC
	Spice bush	30/65	46	FACW
	Norway maple	5/65	8	
Vine	greenbrier	5/5	100	FAC
Tree				
	Red oak	20/110	18	FACW
	Red Maple	80/110	73	FAC
	Black Cherry	10/110	9	FACW

NOTE 1: Use asterisk (*) to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the table below.

NOTE 2: Rankine soil pH or soil status are reported, but are not indicated in the table below.

OBL	1	3	OTHER HYDROPHYTES	FAC	FACW	1	UPL
Hydrophytes SUBTOTAL: 4				Non-hydrophytes SUBTOTAL: 1			
100 x Subtotal Hydrophytes				PERCENT HYDROPHYTES			
Subtotal hydrophytes + Subtotal non-hydrophytes				80%			

HYDROLOGY

☐ RECORDED DATA

Stream, lake or soil pipe: _____

Aerial Photograph: _____

Other: _____

☐ NO RECORDED DATA

☐ OBSERVATIONS:

Depth to Free Water: _____

Depth to Saturation (including capillary fringe): _____

Describe Altered Hydrology: _____

☐ Inundated ☐ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): No Indic. - on slope

SOIL	Sketch Landscape Position			
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-6	A	7.5YR 3/2	—	FSL, fine roots
6-18		7.5YR 4/4	—	FSL

HYDRIC SOIL INDICATOR(S): None REFERENCE:

OPTIONAL SOIL DATA: REFERENCES:

TAXONOMIC SUBGROUP: WD

SOIL DRAINAGE CLASS: WD

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

Greater than 50% Hydrophytes?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	IS THIS DATAPPOINT WITHIN A WETLAND?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soils Criterion Met?	<input type="checkbox"/> <input checked="" type="checkbox"/>	REMARKS:	
Wetland Hydrology Met?	<input type="checkbox"/> <input checked="" type="checkbox"/>		

PROJECT TITLE: TRANSECT: PLOT:

CT-A56

Islander East DEFLO PROP. Valve C31 Access Road from Rt. 15

PROJECT TITLE: CD, DR TRANSECT: 1 PLOT: WET

DATE: 10/15/02

VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NR STATUS
<u>Herb</u>	<i>Epilobium</i> sp.	20/80	25	Obs
	<i>Polygonum lapathifolium</i>	20/80	25	few
	<i>Impatiens capensis</i>	40/80	50	few
<u>Shrub</u>	<i>Cornus racemosa</i>	50/70	71	—
	<i>Lindera benzoin</i>	20/70	29	few
<u>Tree</u>	<i>Ulmus americana</i>	10/90	—	few
	<i>Acer rubrum</i>	70/90	78	few
	<i>Fraxinus pensylvanica</i>	10/90	—	few

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants identified with asterisks should be considered as "wetland hydrophytes" in the tally below.

NOTE 2: Species with 10% or less status are reported, but are not considered in the tally below.

1	2	4	OTHER	HYDROPHYTES	PERCENT
Obs	few	few	—	—	—
Hydrophytes SUBTOTAL: 3				NON-Hydrophytes SUBTOTAL: 0	
100 x Subtotal Hydrophytes				PERCENT HYDROPHYTES = 100%	
Subtotal Hydrophytes + Subtotal Non-Hydrophytes					

HYDROLOGY: ☐ RECORDED DATA: Screen, hole or tide gage; Aerial Photograph; Other. ☐ NO RECORDED DATA. ☐ OBSERVATIONS: Depth to Free Water: 18; Depth to Saturation (including capillary fringe): 18; Describe Altered Hydrology: —

☐ Inundated ☒ Saturated in upper 12 inches ☐ Warm Matrix ☒ Drift Lines ☒ Sediment Deposits ☒ Drainage Patterns within Wetland ☐ OTHER (explain): —

SOIL Sketch Landscape Position

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture, and residues, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-8	Fill	5YR 4/3	—	Sandy fill over natural soil (wash-in)
8-20	A	5YR 4/2	5YR 3/4, g	SIL

HYDRIC SOIL INDICATOR(S): REFERENCE:

OPTIONAL SOIL DATA: TAXONOMIC SUBGROUP: SOIL DRAINAGE CLASS: PD DEPTH TO ACTIVE WATER TABLE: NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS: Greater than 50% Hydrophytes? ☒ Yes ☐ No IS THIS DATAPoint WITHIN A WETLAND? ☒ Yes ☐ No Hydric Soils Criterion Met? ☒ Yes ☐ No Wetland Hydrology Met? ☒ Yes ☐ No REMARKS:

PROJECT TITLE: TRANSECT: PLOT:

CT-A56

Islander East DEFCO Prop Access
Road from Rt. 15

PROJECT TITLE		TRANSECT: 1	PLOT: UP	
DELINEATOR(S):		DATE:		
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
<p>Raised gravel Road from Rt. 15 to Prop. Veg. Sparse grasses, Plantain, etc.</p>				
<p>NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants indicated with asterisks should be considered as "other hydrophytes" in the tally below.</p> <p>NOTE 2: Species with full or full almost are reported, but are not indicated in the tally below.</p>				
<p>DEL FACW FAC OTHER HYDROPHYTES FAC FACU UPL</p> <p>Hydrophytes SUBTOTAL: _____ NON-Hydrophytes SUBTOTAL: _____</p> <p>$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES} = \underline{N/A\%}$</p>				
<p>HYDROLOGY <small>Hydrology is often the most difficult feature to observe. Interpretation must consider the results of the observation in light of the location, recent weather conditions, observed plant life, etc. Description of hydrology may require multiple observations over more than one season.</small></p> <p><input type="checkbox"/> RECORDED DATA Stream, lake or tidal pool: Identification: _____ Aerial Photograph: Identification: _____ Other: Identification: _____</p> <p><input type="checkbox"/> NO RECORDED DATA</p> <p><input type="checkbox"/> OBSERVATIONS: Depth to Free Water: _____ Depth to Saturation (including capillary fringe): _____ Describe Altered Hydrology: _____</p> <p><input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Crust Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns within Wetland</p> <p><input type="checkbox"/> OTHER (explain): _____</p>				

SOIL		Sketch Landscape Position		
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, mottles, pore linings, restrictive layers, root distribution, soil water, etc.
<p>Raised gravel Road - Fill Soils</p>				
HYDRIC SOIL INDICATOR(S)			REFERENCE:	
OPTIONAL SOIL DATA:			REFERENCES:	
TAXONOMIC SUBGROUP:				
SOIL DRAINAGE CLASS:				
DEPTH TO ACTIVE WATER TABLE:				
NTCHS HYDRIC SOIL CRITERION:				
<p>CONCLUSIONS</p> <p>Greater than 50% Hydrophytes? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No IS THIS DATAPPOINT WITHIN A WETLAND? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Hydric Soils Criterion Met? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No REMARKS:</p> <p>Wetland Hydrology Met? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>				
PROJECT TITLE: _____ TRANSECT: _____ PLOT: _____				

AGT Anomaly #6, 7
MP 3.79± CT-A57

PROJECT TITLE:		TRANSECT: 1	PLOT: Wet	
DELINEATOR(S): CD, DR		DATE: 10/15/02		
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
<i>Acid</i>	<i>Onoclea sensibilis</i>	60/140	43	Facw ✓
	<i>Eupatorium maculatum</i>	20/140	14	Fac-
	<i>Dryopteris spinulosa</i>	10/140	7	Fact
	<i>Ilex verticillata</i>	30/140	21	factw ✓
	<i>Vitis sp.</i>	20/140	14	—
<i>Shrub</i>	<i>Rubus occidentalis</i>	30/80	38	—
	<i>Rosa multiflora</i>	40/80	50	Facw ✓
	<i>I. verticillata</i>	10/80	13	Facw
<i>Tree</i>	<i>Quercus velutina</i>	20/50	40	—
	<i>Quercus palustris</i>	20/50	40	Facw ✓

NOTE 1: Use indicator "x" to indicate plants with observable adaptations to wetland hydrology. Plants recorded with indicator should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with x's in the tally are reported, but are not included in the tally below.

DEL	3	FAC	1	UPL
Hydrophytes SUBTOTAL: 3		Non-hydrophytes SUBTOTAL: 1		
100 x Subtotal Hydrophytes		PERCENT HYDROPHYTES		75%

HYDROLOGY: ☐ RECORDED DATA: Stream, lake or tidal gauge; Aerial Photograph; Other. ☐ NO RECORDED DATA. ☐ OBSERVATIONS: Depth to Free Water; Depth to Saturation (including capillary fringe); Describe Altered Hydrology.

☐ Inundated ☒ Saturated in upper 12 inches ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns within Wetland ☐ OTHER (explain):

SOIL	Sketch Landscape Position			
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.
0-6	A	7.5YR 3/2	—	FSL
6-20	B	7.5YR 3/3	5YR 4/6 C,d-B; Redox Depl.	FSL
				Disturbed - In pipeline ROW

HYDRIC SOIL INDICATOR(S): Red soils w/ ↑ R, F, RD REFERENCE:

OPTIONAL SOIL DATA: TAXONOMIC SUBGROUP: REFERENCES:

SOIL DRAINAGE CLASS:

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS:

Greater than 50% Hydrophytes?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	IS THIS DATAPoint WITHIN A WETLAND?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soils Criterion Met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	REMARKS:	
Wetland Hydrology Met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

PROJECT TITLE: TRANSECT: PLOT:

Anomaly #6,7 CTA57-1 to 4
MP 3.79±

PROJECT TITLE:		TRANSECT:	PLOT: UP	
DELINEATOR(S): CD, DR		DATE: 10/15/02		
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS
	<i>Solidago altissima</i>	20/60	33%	facu- ✓
	<i>Polystrichum acrostichoides</i>	20/60	33%	facu- ✓
	<i>Spiraea latifolia</i>	10/60	16%	facu- ✓
	<i>Toxicodendron radicans</i>	10/60	16%	facu- ✓
	<i>Vitis</i> sp.	10/55	18%	—
	<i>Rosa multiflora</i>	20/55	34%	facu- ✓
	<i>Lindera benzoin</i>	25/55	45%	facu- ✓
	<i>Quercus velutina</i>	60/70	86%	f ✓
	<i>Quercus palustris</i>	10/70	14%	f ✓

NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology.
Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.

NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.

OBL	FACW	FAC	OTHER HYDROPHYTES	FAC	FACU	UPL
	2			3	3	
Hydrophytes SUBTOTAL: 2				NON-Hydrophytes SUBTOTAL: 3		
100 x Subtotal Hydrophytes				PERCENT HYDROPHYTES		
Subtotal Hydrophytes + Subtotal Non-hydrophytes				400%		

HYDROLOGY

1. Hydrology is often the most difficult feature to observe.
2. Interpretation must consider the safety of the observer as well as the safety of the equipment.
3. Interpretation of hydrology may require repeated observations over more than one season.

☐ RECORDED DATA

Stream, lake or tidal gage Identification: _____
Aerial Photograph Identification: _____
Other Identification: _____

☐ NO RECORDED DATA

☐ OBSERVATIONS:

Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Describe Altered Hydrology: _____

SOIL		Sketch Landscape Position		
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore frings, restrictive layers, root distribution, soil water, etc.
0-6	A	7.5YR 3/3	—	FSL, stony hill slope
6-18	B	7.5YR 4/3	—	FSL, stony

HYDRIC SOIL INDICATOR(S) REFERENCE:

OPTIONAL SOIL DATA: REFERENCES:

TAXONOMIC SUBGROUP:

SOIL DRAINAGE CLASS:

DEPTH TO ACTIVE WATER TABLE:

NTCHS HYDRIC SOIL CRITERION:

CONCLUSIONS

	Yes	No		Yes	No
Greater than 50% Hydrophytes?	<input type="checkbox"/>	<input type="checkbox"/>	IS THIS DATAPPOINT WITHIN A WETLAND?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydric Soils Criterion Met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	REMARKS:		
Wetland Hydrology Met?	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

PROJECT TITLE: TRANSECT: PLOT:

LT-A58

PROJECT TITLE:		TRANSECT:		PLOT: <u>Wet</u>	
DELINEATOR(S): <u>Harold Duncan</u> DATE: <u>11-18-02</u>					
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS	
<u>Herbs</u>	<u>Phragmites australis</u>	<u>70/80</u>	<u>88%</u>	<u>FACW</u>	
	<u>Solidago rugosa</u>	<u>10/80</u>	<u>12%</u>		
<u>Other</u> - <u>off road</u>					
<u>Sap. Honey suckle, red maple,</u> <u>Swamp white oak, Ironwood,</u>					
<small>NOTE 1: Use asterisk * to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the tally below.</small> <small>NOTE 2: Species with NA or NI status are reported, but are not calculated in the tally below.</small>					
OBL <u>1</u> FACW <u>1</u> FAC <u>1</u> OTHER HYDROPHYTES <u>1</u>		FAC <u>1</u> FACU <u>0</u> UPL <u>0</u>			
Hydrophytes SUBTOTAL: <u>1</u>		NON-hydrophytes SUBTOTAL: <u>0</u>			
100 x Subtotal Hydrophytes		PERCENT HYDROPHYTES			
Subtotal Hydrophytes + Subtotal Non-hydrophytes		<u>100%</u>			
HYDROLOGY <small>1. Hydrology is often the most difficult feature to observe. Interpretation must consider the validity of the observations in light of the season, recent weather conditions, and interpretation of hydrology may require repeated observations over more than one season.</small>					
<input type="checkbox"/> RECORDED DATA Stream, lake or tidal gage Identification: _____ Aerial Photograph Identification: _____ <input type="checkbox"/> NO RECORDED DATA Other Identification: _____ <input type="checkbox"/> OBSERVATIONS: Depth to Free Water: <u>6"</u> Depth to Saturation (including capillary fringe): <u>surface</u> Describe Altered Hydrology: _____					
<input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Oxid Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns within Wetland					
<input type="checkbox"/> OTHER (explain): _____					

SOIL		Sketch Landscape Position		
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA-Texture; and nodules, concretions, masses, pore linings, redoxigative layers, root distribution, soil water, etc.
<u>0-10</u>		<u>5YR5/3</u>	<u>5YR2/4</u>	<u>Fine Sandy loam</u>
<u>10-20</u>			<u>1/2 Redox-tiny</u>	
HYDRIC SOIL INDICATOR(S) REFERENCE:				
<u>Disturbed; Red soils w/ redox.</u>				
OPTIONAL SOIL DATA: TAXONOMIC SUBGROUP: REFERENCES:				
SOIL DRAINAGE CLASS:				
DEPTH TO ACTIVE WATER TABLE:				
NTCHS HYDRIC SOIL CRITERION:				
CONCLUSIONS				
Greater than 50% Hydrophytes?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	IS THIS DATAPPOINT WITHIN A WETLAND? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Criterion Met?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	REMARKS: <u>Disturbed soils</u>	
Wetland Hydrology Met?		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<u>ATV Trail</u>	
PROJECT TITLE: TRANSECT: PLOT: <u>Wet</u>				

CT-A58

PROJECT TITLE		TRANSECT:		PLOT: <u>up</u>	
DELINEATOR(S): <u>Herd / Duncan</u>		DATE: <u>11-18-02</u>			
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	AWI STATUS	
<u>Herbs</u>					
	<u>Solidago rugosaw</u>	<u>40/70</u>	<u>57%</u>	<u>FAC</u>	
	<u>Rubus spp.</u>	<u>10/70</u>	<u>14%</u>		
	<u>Unknown grasses</u>	<u>20/70</u>	<u>29%</u>	<u>UPL</u>	
<small>NOTE 1: Use species "x" to indicate plants with observed adaptations to wetland hydrology. Plants recorded with asterisks should be considered as "other hydrophytes" in the table below.</small> <small>NOTE 2: Species with RW or HL codes are reported, but are not included in the table below.</small>					
OBL FACW <u>HL</u> OTHER HYDROPHYTES Hydrophytes SUBTOTAL: <u>1</u>		FAC- FACU <u>UPL</u> Non-hydrophytes SUBTOTAL: <u>1</u>			
$\frac{100 \times \text{Subtotal Hydrophytes}}{\text{Subtotal Hydrophytes} + \text{Subtotal Non-hydrophytes}} = \text{PERCENT HYDROPHYTES}$		<u>50%</u>			
HYDROLOGY <small>Hydrology is often the most difficult feature to observe. Observations must indicate the nature of the observation in light of the season, recent weather conditions, associated observations, etc. Measurements of hydrology may require repeated observations over time from one species.</small>					
<input type="checkbox"/> RECORDED DATA Screen, tape or video page Identification: _____ Aerial Photograph Identification: _____ Other Identification: _____ <input type="checkbox"/> NO RECORDED DATA <input type="checkbox"/> OBSERVATIONS: Depth to Free Water: _____ Depth to Saturation (including capillary fringe): _____ Describe Altered Hydrology: _____					
<input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Oxid Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns within Wetland <input type="checkbox"/> OTHER (explain): _____					

SOIL		Sketch Landscape Position		
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Consist	USDA Texture; and nodules, concretions, menses, pore frings, restrictive layers, root distribution, soil water, etc.
<u>0-12"</u>		<u>5YR4/3</u>	<u>Faint Mottles</u> <u>C ~ 6"</u>	<u>Fine sandy loam</u>
<u>12"-20"</u>		<u>5YR3/4</u>	<u>Faint Mottles</u> <u>small</u>	<u>11</u>
HYDRIC SOIL INDICATOR(S)			REFERENCE:	
OPTIONAL SOIL DATA:			REFERENCES:	
TAXONOMIC SUBGROUP:				
SOIL DRAINAGE CLASS:				
DEPTH TO ACTIVE WATER TABLE:				
NTCHS HYDRIC SOIL CRITERION:				
CONCLUSIONS			Yes No Greater than 50% Hydrophytes? <input type="checkbox"/> <input checked="" type="checkbox"/> IS THIS DATAPPOINT WITHIN A WETLAND? <input type="checkbox"/> <input checked="" type="checkbox"/> Hydric Soils Criterion Met? <input type="checkbox"/> <input checked="" type="checkbox"/> REMARKS: Wetland Hydrology Met? <input type="checkbox"/> <input checked="" type="checkbox"/>	
PROJECT TITLE:			TRANSECT:	
			PLOT: <u>up</u>	

CT-A59

PROJECT TITLE:		TRANSECT:		PLOT: <i>wet</i>																																				
DELINEATOR(S): <i>Herd/Duncan</i>		DATE: <i>11-18-02</i>																																						
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance	NWI STATUS																																				
<u>Herbs</u>																																								
	<i>Juncus effusus</i>	<i>30/75</i>	<i>40%</i>	<i>FACW</i>																																				
	<i>Carex lurida</i>	<i>20/75</i>	<i>27%</i>	<i>OBL</i>																																				
	<i>Solidago rugosa</i>	<i>10/75</i>	<i>13%</i>																																					
	<i>Lycopus spp</i>	<i>10/75</i>	<i>13%</i>																																					
<u>Shrubs</u>																																								
	<i>Cornus amomum</i>	<i>10/10</i>	<i>100%</i>	<i>FACW</i>																																				
<u>Other</u>																																								
<i>willow cattail</i>																																								
<small>NOTE 1: Use nearest 1% to estimate plants with observed adaptations to wetland hydrology. Plants recorded with adjacent wetlands should be considered as "other hydrophytes" in the tally below.</small> <small>NOTE 2: Species with NA or N/A ratios are reported, but are not calculated in the tally below.</small>																																								
<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">FAC</td> <td style="text-align: center;">OTHER HYDROPHYTES</td> <td style="text-align: center;">FAC</td> <td style="text-align: center;">FACU</td> <td style="text-align: center;">UPL</td> </tr> <tr> <td style="text-align: center;">OBL</td> <td style="text-align: center;">FACW</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="3" style="text-align: right;">Hydrophytes SUBTOTAL:</td> <td style="text-align: center;"><i>3</i></td> <td colspan="3" style="text-align: right;">Non-Hydrophytes SUBTOTAL:</td> </tr> <tr> <td colspan="3" style="text-align: right;">100 x Subtotal Hydrophytes</td> <td style="text-align: center;"><i>3</i></td> <td colspan="3" style="text-align: right;">100 x Subtotal Non-Hydrophytes</td> </tr> <tr> <td colspan="3" style="text-align: right;">Subtotal Hydrophytes + Subtotal Non-Hydrophytes</td> <td style="text-align: center;"><i>100%</i></td> <td colspan="3" style="text-align: right;">PERCENT HYDROPHYTES</td> </tr> </table>						1	2	FAC	OTHER HYDROPHYTES	FAC	FACU	UPL	OBL	FACW						Hydrophytes SUBTOTAL:			<i>3</i>	Non-Hydrophytes SUBTOTAL:			100 x Subtotal Hydrophytes			<i>3</i>	100 x Subtotal Non-Hydrophytes			Subtotal Hydrophytes + Subtotal Non-Hydrophytes			<i>100%</i>	PERCENT HYDROPHYTES		
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HYDROLOGY <small>Hydrology is often the most difficult feature to measure. Hydrologists must consider the validity of the observation in light of the season, recent weather conditions, seasonal variations, etc. Interpretation of hydrology may require necessary observations from more than one season.</small>																																								
<input type="checkbox"/> RECORDED DATA Stream, lake or tidal gage Identification: _____ Aerial Photograph Identification: _____ Other: _____																																								
<input type="checkbox"/> NO RECORDED DATA																																								
<input type="checkbox"/> OBSERVATIONS: Depth to Free Water: _____ Depth to Saturation (including capillary fringe): <i>8"</i> Describe Altered Hydrology: <i>surf. fac.</i>																																								
<input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Ditch Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns within Wetland																																								
<input type="checkbox"/> OTHER (explain): _____																																								

SOIL	Sketch Landscape Position			
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES <small>Color, Abundance, Size & Contrast</small>	USDA Texture; and nodules, concretions, masses, pore <small>fringe, restrictive layers, root distribution, soil water, etc.</small>
<i>0-8</i>		<i>5YR4/3</i>	<i>Faint Mottles throughout</i>	<i>Fine Sandy loam</i>
<i>8-16</i>		<i>5YR2/4</i>	<i>"</i>	<i>"</i>
<i>Auger refusal @ 16"</i> <i>Stream</i> <i>~6' wide - braided channels; shallow</i>				
HYDRIC SOIL INDICATOR(S)			REFERENCE:	
<i>Disturbed; Red soils w/ Redox</i>				
OPTIONAL SOIL DATA:			REFERENCES:	
TAXONOMIC SUBGROUP:				
SOIL DRAINAGE CLASS:				
DEPTH TO ACTIVE WATER TABLE:				
NTCHS HYDRIC SOIL CRITERION:				
CONCLUSIONS				
Greater than 50% Hydrophytes? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			IS THIS DATAPOINT WITHIN A WETLAND? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Hydric Soils Criterion Met? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			REMARKS:	
Wetland Hydrology Met? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
<small>Publication 12-01-02 - 12-01-02</small>				
PROJECT TITLE:		TRANSECT:		PLOT: <i>wet</i>

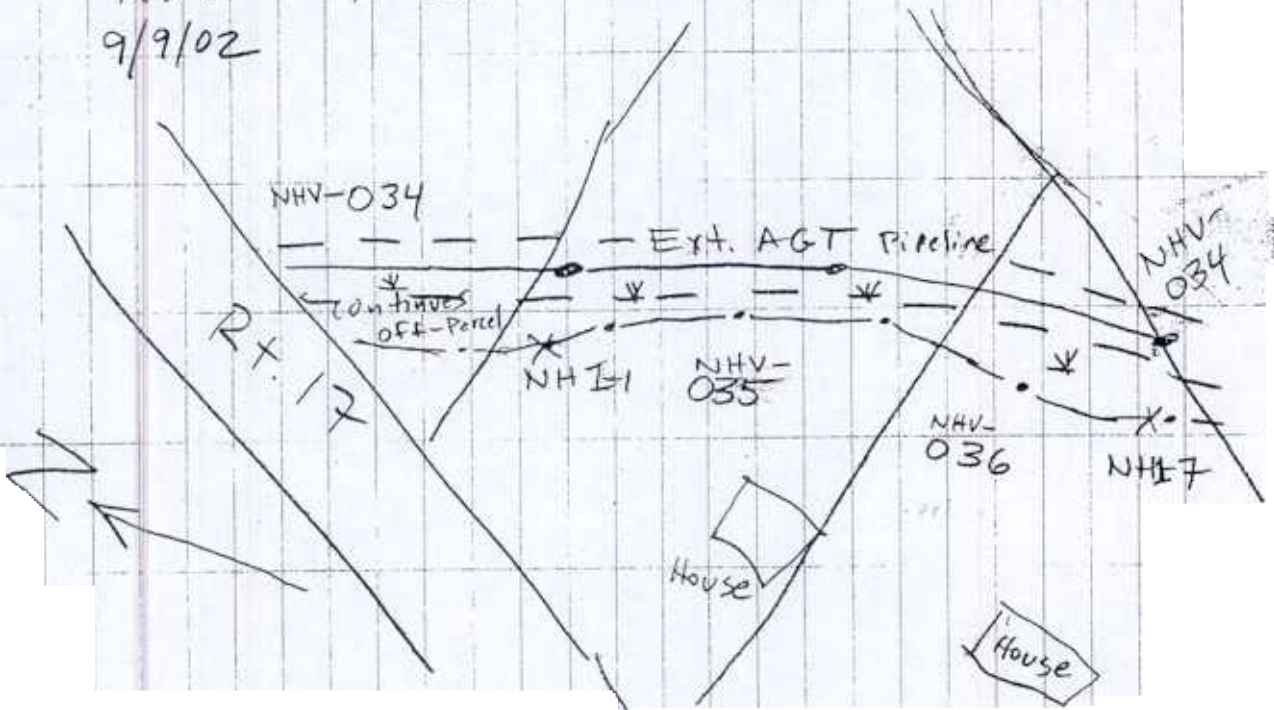
CT-A59

PROJECT TITLE:		TRANSECT:	PLOT: <u>UP</u>																																			
DELINEATOR(S): <u>Hard / Dune</u>		DATE: <u>11-18-02</u>																																				
VEGETATION	Stratum and Species (Dominants Only)	Dominance Ratio	Percent Dominance																																			
<u>Herbs</u>																																						
	<i>Solidago canadensis</i>	15/35	43%																																			
	mint spp.	10/35	29%																																			
	unknown grasses	20/35	57%																																			
<u>Shrubs</u>																																						
	<i>Cornus amomum</i>	10/20	50%																																			
	<i>Elaeagnus umbellata</i>	10/20	50%																																			
<small>NOTE 1: Use "OBL" to indicate plants with unusual adaptations to wetland hydrology. Plants indicated with asterisks should be considered as "other hydrophytes" in the tally below.</small> <small>NOTE 2: Species with H1 or H2 status are reported, but are not tallied in the tally below.</small>		<table style="width: 100%; text-align: center;"> <tr> <td>OBL</td> <td>FACW</td> <td>FAC</td> <td>OTHER HYDROPHYTES</td> <td>FAC</td> <td>FACU</td> <td>UPL</td> </tr> <tr> <td></td> <td>1</td> <td></td> <td>1</td> <td></td> <td>1</td> <td></td> </tr> <tr> <td colspan="3">Hydrophytes SUBTOTAL: 1</td> <td colspan="4">NON-hydrophytes SUBTOTAL: 2</td> </tr> <tr> <td colspan="3">100 x Subtotal Hydrophytes</td> <td colspan="4">PERCENT HYDROPHYTES</td> </tr> <tr> <td colspan="3">Subtotal Hydrophytes ÷ Subtotal Non-hydrophytes</td> <td colspan="4">= 33%</td> </tr> </table>		OBL	FACW	FAC	OTHER HYDROPHYTES	FAC	FACU	UPL		1		1		1		Hydrophytes SUBTOTAL: 1			NON-hydrophytes SUBTOTAL: 2				100 x Subtotal Hydrophytes			PERCENT HYDROPHYTES				Subtotal Hydrophytes ÷ Subtotal Non-hydrophytes			= 33%			
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Subtotal Hydrophytes ÷ Subtotal Non-hydrophytes			= 33%																																			
HYDROLOGY: <small>Hydrology is often the most difficult factor to observe. Measurements must estimate the ability of the substrate to type of the species, recent weather conditions, vegetation density, and other factors. This requires repeated observations over time and area.</small> <input type="checkbox"/> RECORDED DATA Stream, lake or pond gage: _____ Identification: _____ Aerial Photograph: _____ Identification: _____ Other: _____ Identification: _____ <input type="checkbox"/> NO RECORDED DATA <input type="checkbox"/> OBSERVATIONS: Depth to Free Water: _____ Depth to Saturation (including capillary fringe): _____ Describe Altered Hydrology: _____																																						
<input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in upper 12 inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns within Wetland <input type="checkbox"/> OTHER (explain): _____																																						

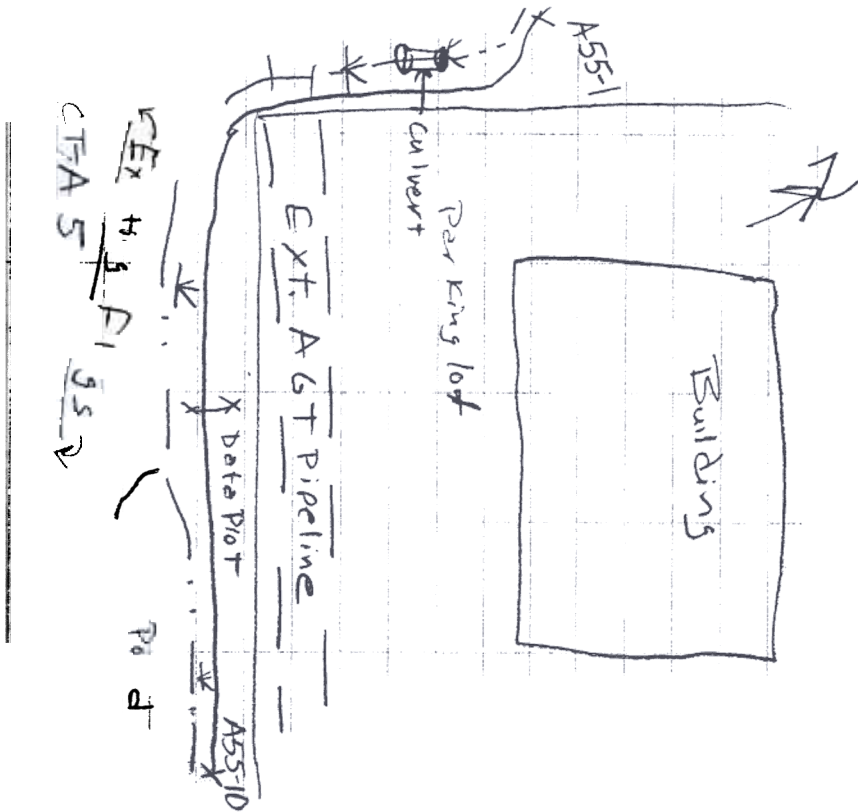
SOIL		Sketch Landscape Position														
DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES Color, Abundance, Size & Contrast	USDA Texture; and nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.												
0-6		5YR 3/3	—	Fine Sandy loam												
6-12		5YR 3/4	Faint	"												
12-20		5YR 2/4	"	"												
HYDRIC SOIL INDICATOR(S)		REFERENCE:														
OPTIONAL SOIL DATA:		REFERENCES:														
TAXONOMIC SUBGROUP:																
SOIL DRAINAGE CLASS:																
DEPTH TO ACTIVE WATER TABLE:																
NCHS HYDRIC SOIL CRITERION:																
CONCLUSIONS		<table style="width: 100%;"> <tr> <td>Greater than 50% Hydrophytes?</td> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td>IS THIS DATAPoint WITHIN A WETLAND?</td> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> </tr> <tr> <td>Hydric Soils Criterion Met?</td> <td><input type="checkbox"/> <input checked="" type="checkbox"/></td> <td colspan="2">REMARKS:</td> </tr> <tr> <td>Wetland Hydrology Met?</td> <td><input type="checkbox"/> <input checked="" type="checkbox"/></td> <td colspan="2"></td> </tr> </table>			Greater than 50% Hydrophytes?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	IS THIS DATAPoint WITHIN A WETLAND?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Hydric Soils Criterion Met?	<input type="checkbox"/> <input checked="" type="checkbox"/>	REMARKS:		Wetland Hydrology Met?	<input type="checkbox"/> <input checked="" type="checkbox"/>		
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Wetland Hydrology Met?	<input type="checkbox"/> <input checked="" type="checkbox"/>															
PROJECT TITLE:		TRANSECT:		PLOT: <u>UP</u>												

Islander East
NHV-035, 036
9/9/02

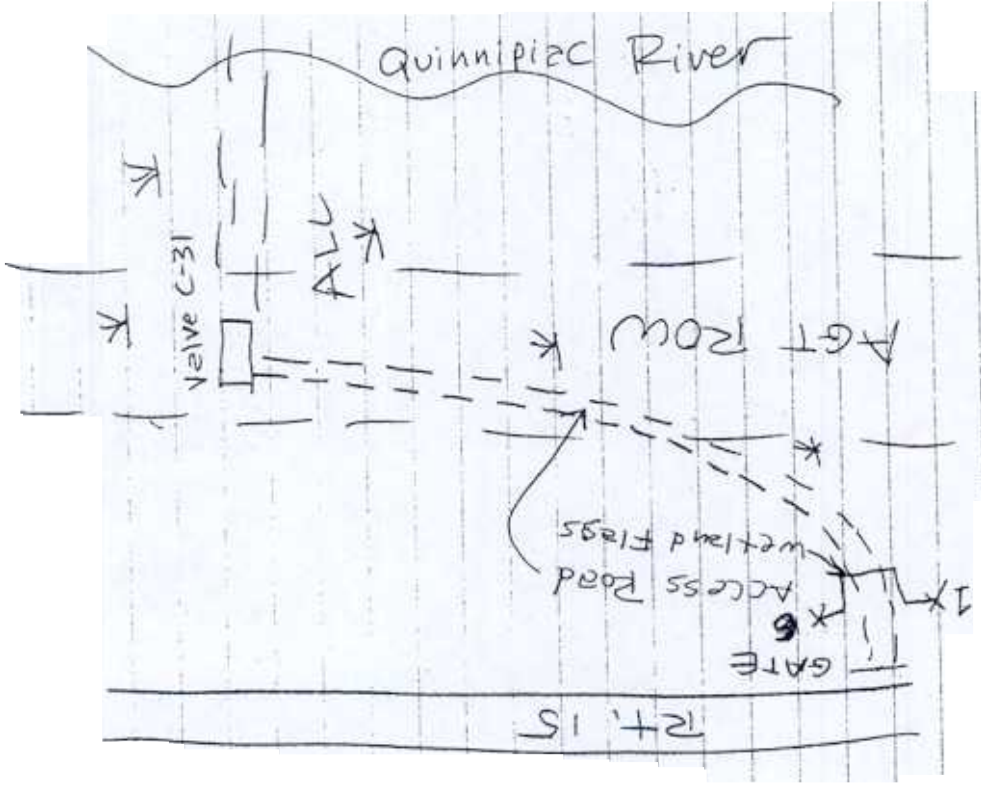
Wetland NH1-1 to 7



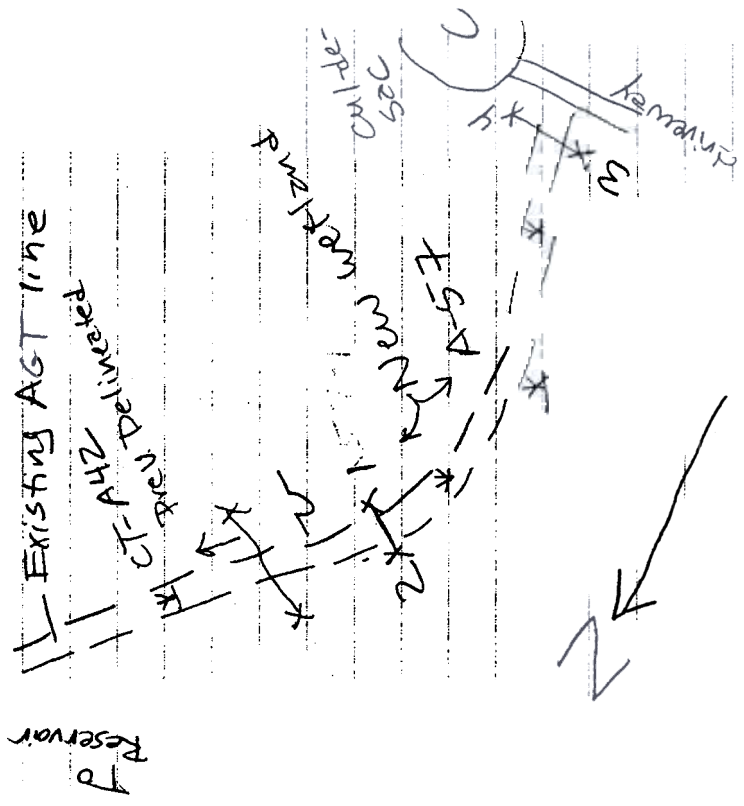
Islander East
NHV 124
Wetland A55- to 10
9/15/02



Islander East 10/15/02
 AGT Retest
 Valve C-31 site "Defco"
 wetland A56-1 to 6



Islander East
 AGT Retest section
 AGT MP 23, 24
 wetland A57-1 to 4

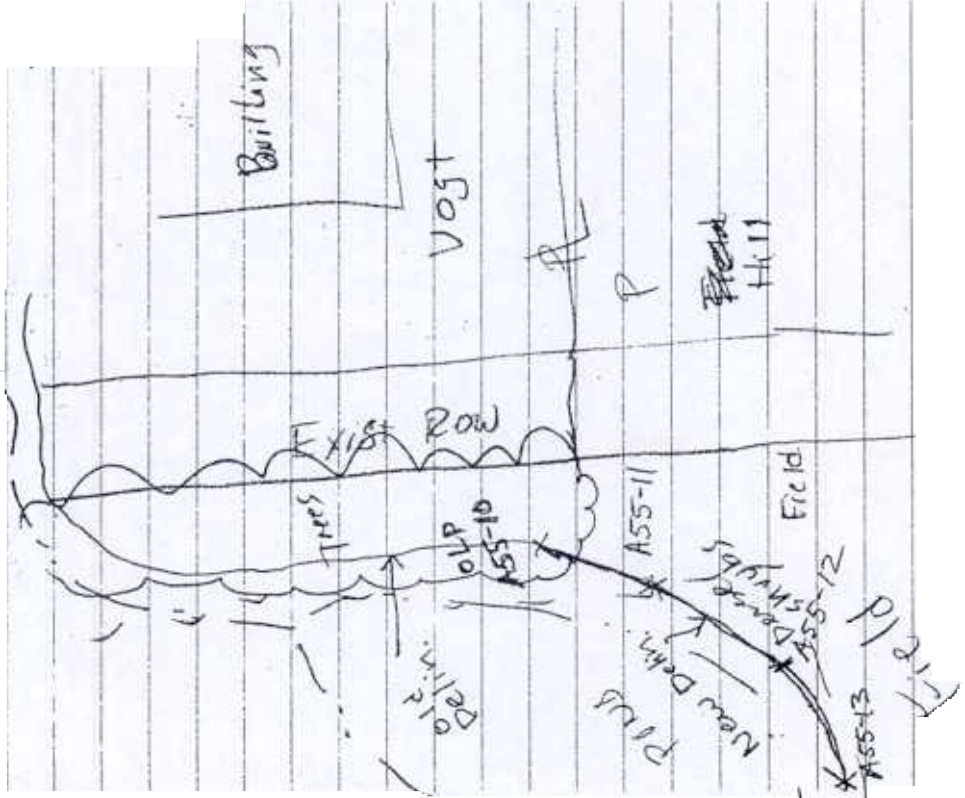


20/8/11

12

CT-A55 to 13

pounded
field



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John H. Johnson

Steep bank to pond
w/ dense scrub

Alder

W rose

Honey suckle Vine

0629.103

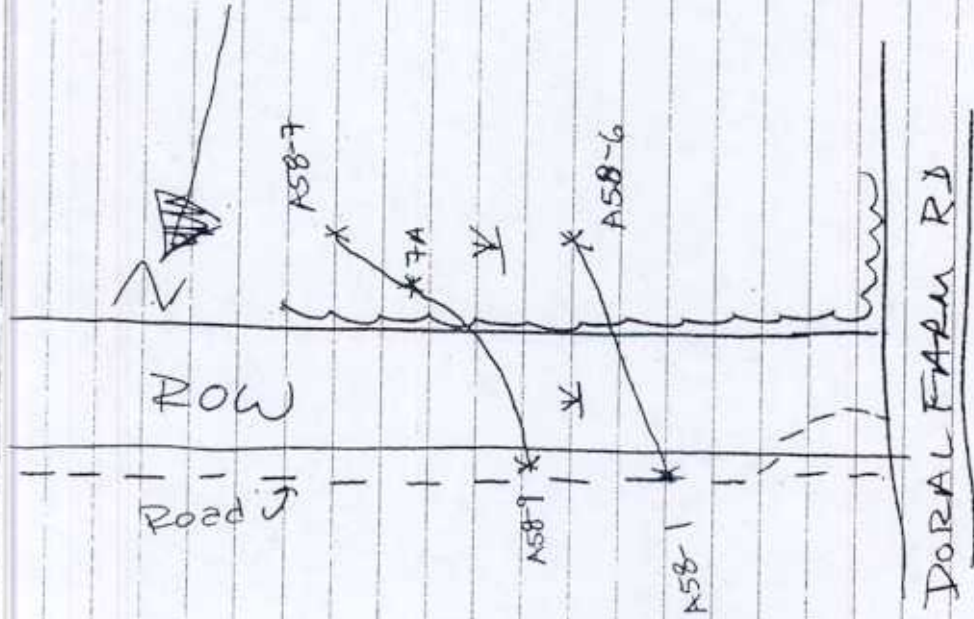
Red maple

Notey nepe

Autumn Olive

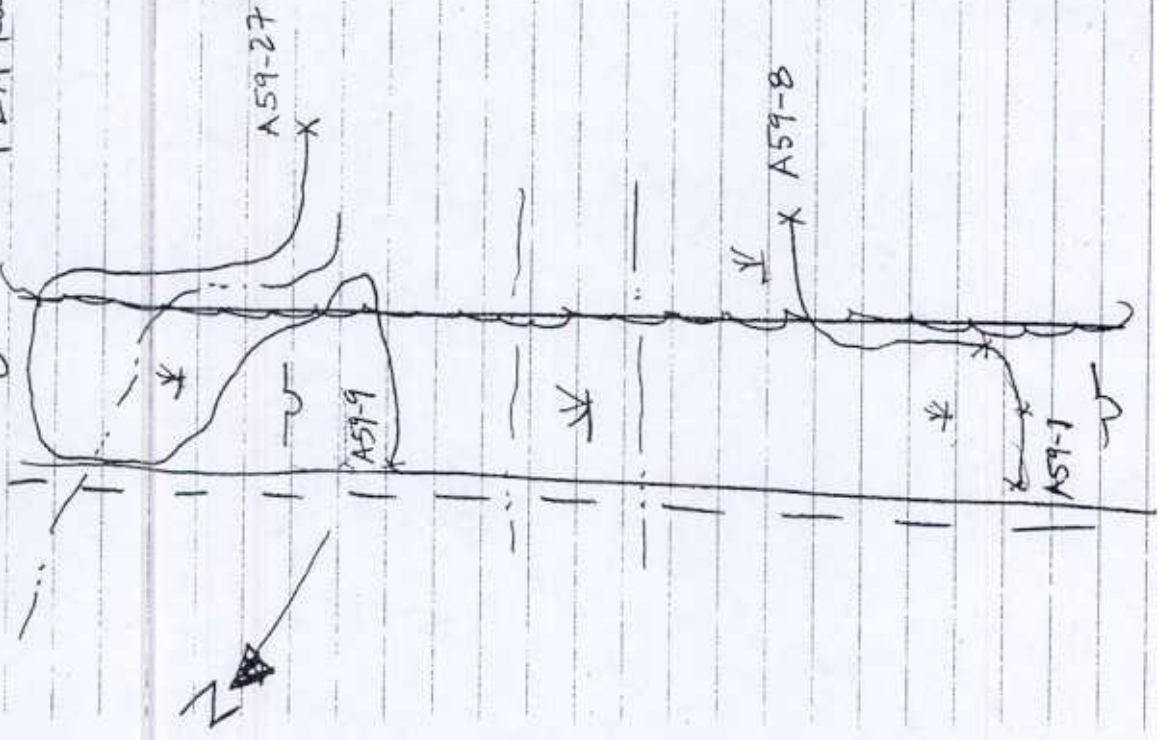
CT-A58
1 to 9

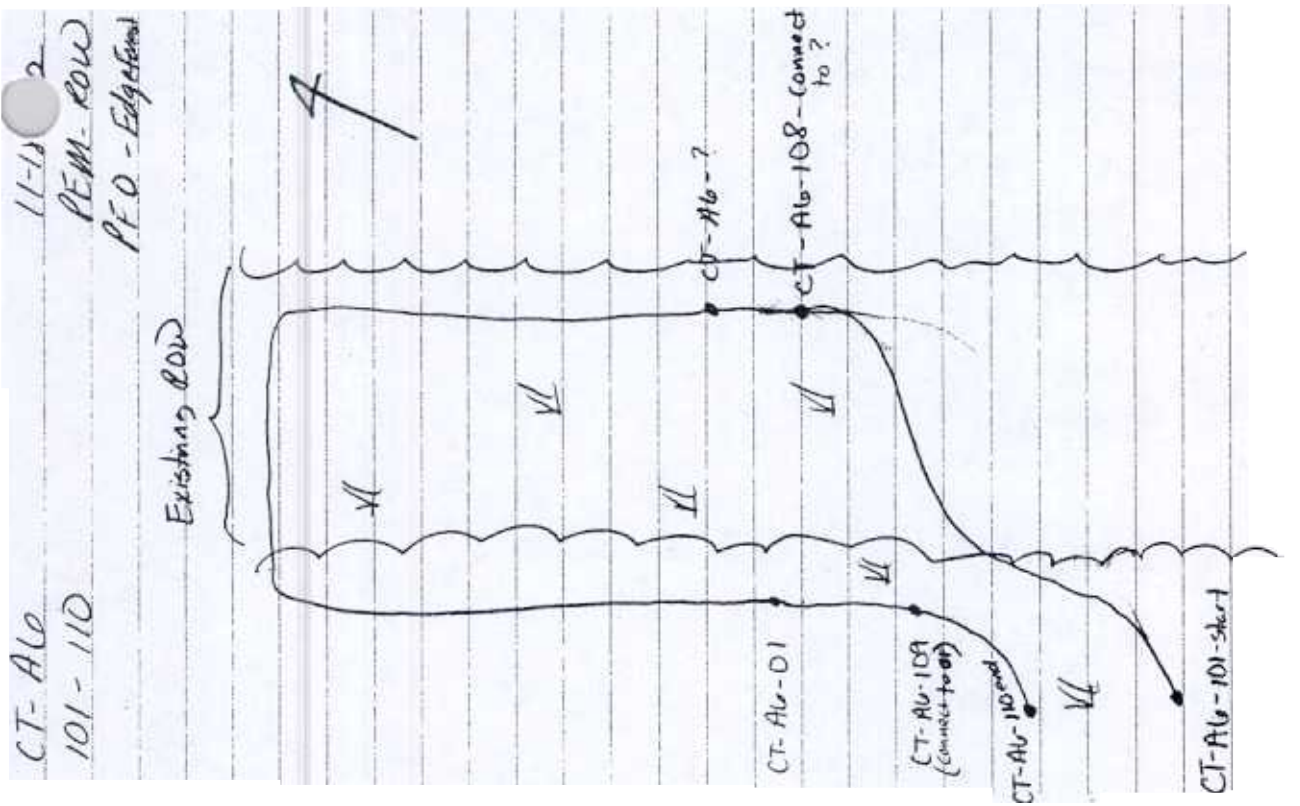
CT-A58
PEM-ROW
PFO



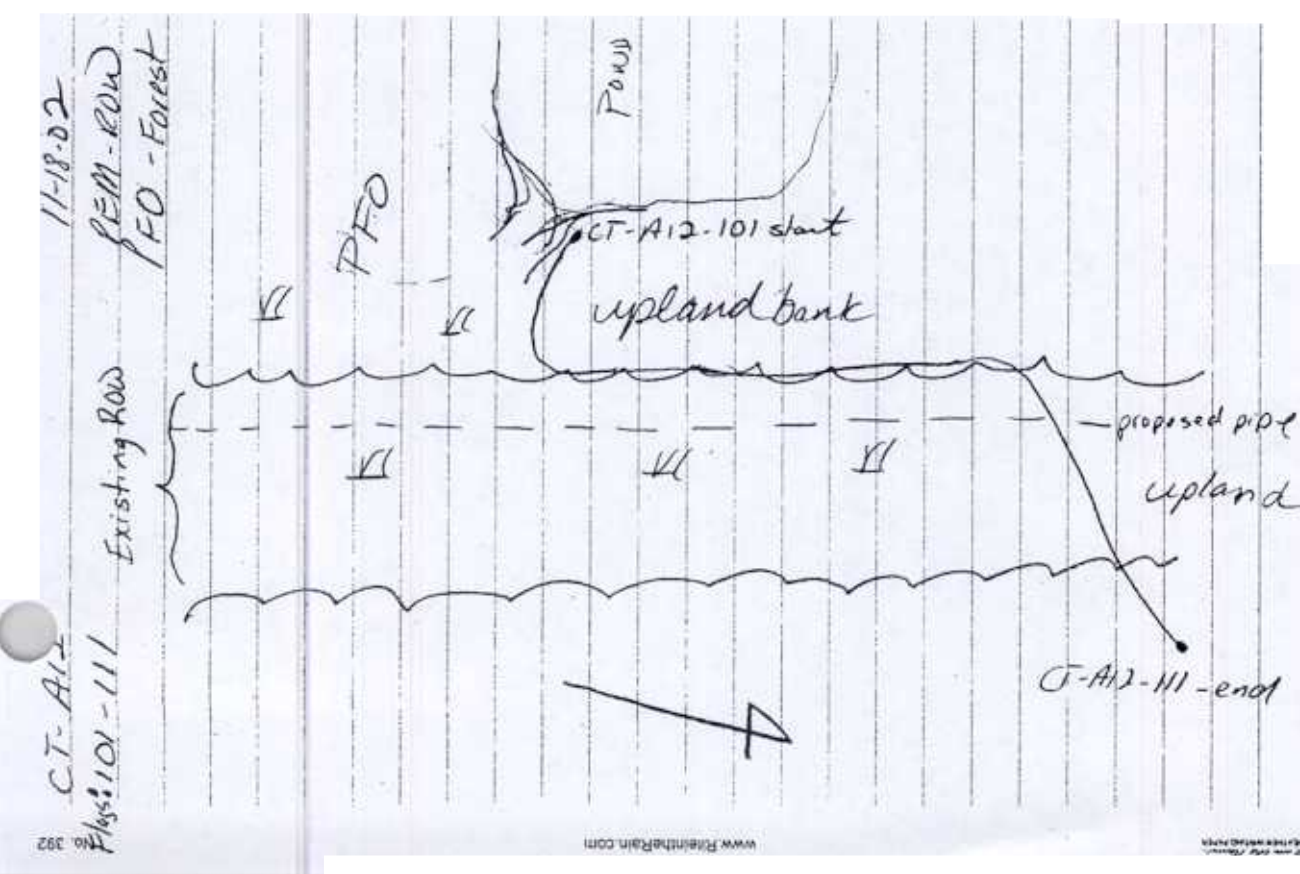
Flags 1 to 27

CT-A59
PEM-ROW





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ALL RIGHTS RESERVED

Attachment B and Attachment C of Exhibit F, Ammendum III involve pipeline location information and are not available at this Internet site due to homeland security-related considerations. This portion of the Islander East consistency appeal administrative record may be reviewed at NOAA's Office of General Counsel for Ocean Services, 1305 East-West Highway, Silver Spring, Maryland.